



UNITED STATES PATENT AND TRADEMARK OFFICE

147

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/954,564	09/17/2001	Ronnie R. Moffitt	D-2695/WOD	7950

7590 01/11/2005

William O'Driscoll - 12-1
The Trane Company
3600 Pammel Creek Road
La Crosse, WI 54601

EXAMINER

CIRIC, LJILJANA V

ART UNIT	PAPER NUMBER
----------	--------------

3753

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/954,564	Applicant(s) MOFFITT, RONNIE R.	
	Examiner Ljiljana (Lil) V. Ciric <i>AVC</i>	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 12-23 and 25-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 24 and 30-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office action is in response to the reply filed on September 24, 2004.
2. Claims 1 through 37 remain in the application. Of these, claims 5 through 8, 10, 11, 24, 32, 33, 36, and 37 have been amended.

Response to Arguments

3. Applicant's arguments with respect to the rejection of claims 1 through 11, 30 through 32, and 34 through 36 under 35 U.S.C. 102(b) as being anticipated by Dzershinskii and of claim 24 as being rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor as cited in the previous Office action have been considered but are moot in view of the new ground(s) of rejection applied below.

The remainder of applicant's arguments filed on September 24, 2004 have been fully considered but they are generally not persuasive and are traversed hereby, as follows.

With regard to the objection to the drawings as cited in the previous Office action relating to the drawings failing to show a divider wall between the bathroom exhaust airstream path and the return airstream path, applicant argues that the objection is not proper because the disclosure "clearly states that 'a divider wall 50 is provided in the exhaust airflow path 40 to segregate the bathroom exhaust airstream 26 from the return airstream 22 so that the bathroom exhaust 26 is directed to a first heat acquiring portion 52 of the heat exchanger 12 and the return airstream 22 is directed to a second heat acquiring portion 54 of the heat exchanger 12'" and that furthermore "Figure 1 clearly shows a divider wall 50 performing this segregation function". This is not found persuasive because while Figure 1 does show a divider wall 50, this divider wall is NOT shown as being BETWEEN the bathroom exhaust airstream 26 and the path corresponding to return airstream 22 as recited in the claims NOR does do the drawings show the divider wall 50 as being disposed to segregate the bathroom exhaust airstream 26 from the

Art Unit: 3753

return airstream 22 as described in the specification—in either case, the divider wall 50 should at least be oriented differently than it is shown to be in the original drawing.

Applicant states that the extracting means and the transferring means as recited in claim 24 DO refer to the same element, namely the air-to-air heat exchanger 12. Thus, claim 24 may be interpreted as including a the same element, i.e., the air-to-air heat exchanger 12, TWICE, once as the means for extracting heat from the system exhaust and bathroom exhaust airflow paths, and a second time as the means for transferring the extracted heat to the outside air flow path. Where, as in the instant case, a claim directed to a device can be read to include the same element twice, the claim may be rendered indefinite thereby. See *Ex parte Kristensen*, 10 USPQ2d 1701 (Bd. Pat. App. & Inter. 1989). Thus, applicant is advised to replace the two separate means-plus-function limitations with a single means-plus-function limitation which clearly relates both functions to a single element in order to avoid the continued rejection of claim 24 under 35 U.S.C. 112, second paragraph. Reciting “means for extracting heat from the system exhaust and bathroom exhaust airflow paths and for transferring the extracted heat to the outside air flow path” in lieu of the two means-plus-functions limitations as currently appearing in claim 24 would obviate an indefiniteness rejection of claim 24 based on double recitation.

As a preface to the following traversal of applicant’s arguments, the examiner hereby wishes to state for the record that merely reciting the limitation “a *bathroom* exhaust inlet” in an apparatus claim drawn to a “A heat recovery arrangement” does NOT encompass, and is NOT being interpreted by the examiner as encompassing, a bathroom or any part thereof within the scope of the claim. The term “bathroom” in the limitation “a *bathroom* exhaust inlet” (and in all other limitations in the claims where the term “bathroom” is used an adjective preceding a noun) merely recites *the intended use* of the exhaust inlet in or associated with a bathroom as broadly interpreted as required. The claims under consideration do NOT positively recite a bathroom connected to either an energy recovery system or a heat recovery arrangement, NOR do any of the claims recite either the energy recovery system or the heat recovery

Art Unit: 3753

arrangement as being necessarily connected to a bathroom nor located in a bathroom nor in combination with a bathroom. Thus, applicant's arguments that "the claim requirements of claim 1 relative to 'bathrooms' are not met by Taylor", that "Dzershinskii fails to meet the requirements of a bathroom exhaust airflow path and the return airflow path", and that "Besik does not disclose a bathroom exhaust and therefore fails to meet the requirements of a bathroom exhaust airstream path as is required by 30 and 34" are not persuasive.

Similarly, the examiner hereby wishes to state for the record that the limitations "*a bathroom exhaust airflow path*", "*an outside airflow path*", and "*a return airflow path*" are interpreted as being equivalents of the limitations "a path for exhaust air flow", "a path for outside air flow", and "a path for return air flow", with the limitations preceding the term "path" again merely being equivalent to recitations of intended use and with the term "path" being assigned its common meaning of "route"; nothing associated with the common meaning of the term "path" precludes the various air flow paths or routes being co-located in a single structural conduit at some point. Note that reciting a "path" is broader than reciting a "conduit" or a "duct" for air flow; a "path" for an air flow does NOT necessarily include a corresponding duct or a conduit structure because, as long as distinct air flows are created and exist, these air flows can circulate via separate paths within a single space (such as within a room) WITHOUT the benefit of conduits or ducts or pipes existing throughout the room to guide these air flows. Analogously, various ocean currents circulate via various corresponding paths through the waters of an ocean, and no one would automatically associate pipelines or similar structures when ocean current *paths* are mentioned.

Also as a preface to the following traversal of applicant's arguments, the examiner hereby notes that the claims in a pending application should be given their *broadest* reasonable interpretation. See In re Pearson, 181 USPQ 641 (CCPA 1974).

Applicant argues that "Taylor does not show a heat recovery device transferring heat between three airflow paths: the bath exhaust airflow path, the return airflow path, and the outside airflow path.

Art Unit: 3753

The two inlets relied on by the Examiner are clearly shown as merging into a common airflow path thus fail to meet the requirement of a heat recovery device transferring heat between three airflow paths.”

These arguments are not found persuasive by the examiner with regard to at least claims 1 through 4 and 10 of the instant invention because the traversal is based on an inappropriately narrow interpretation of the claims in a pending application. For example, Taylor most clearly discloses three airflow paths: a first airflow path extending from the first inlet 24 to outlet 28, a second airflow path extending from the second inlet 24 to outlet 28, and a third airflow path extending from inlet 26 to outlet 30. The rejected claims of the instant application as written do NOT preclude any of the airflow paths merging with each other. Furthermore, originally filed Figure 1 of the instant application even shows bathroom exhaust air stream 26 as flowing parallel with return air stream 22 and merging therewith to form exhaust air stream 16. Thus, no structure is recited in the rejected claims which distinguishes these claims from the Taylor reference. Applicant is thus also respectfully reminded that claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). Also, “[A]pparatus claims cover what a device *is*, not what a device *does*. (Emphasis in original). *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469 15 USPQ2d 1525, 1528 (Fed. Cir. 1990).

Applicant’s arguments relating to the rejection of claims 30 through 37 under 35 U.S.C. 102(b) as being anticipated by Besik are similarly not persuasive. Applicant notes, for example, that “Besik does not disclose a bathroom exhaust”. As noted previously, however, the term “bathroom” in the limitation “bathroom exhaust” is merely an intended use limitation in an apparatus claim, and fails to positively recite either a bathroom in combination with an exhaust or an exhaust located in a bathroom or even merely connected to a bathroom. The limitation “bathroom exhaust” is being broadly interpreted by the examiner as required as being equivalent to the limitations “an exhaust for a bathroom” or “an exhaust for use in a bathroom”. Thus, for example, in response to applicant’s argument that the prior art fails to

Art Unit: 3753

disclose a bathroom exhaust, it is hereby noted by the examiner that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Applicant further argues that "Besik clear shows two air streams and not the three airstreams as is required by these claims." This argument is traversed by the examiner since at least Figure 1 of Besik (as previously specified in the corresponding rejection of the claims) clearly shows three airstreams: air flow paths 20, 21, and 22.

Applicant's arguments thus fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Applicant's arguments thus also do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Election/Restriction

4. Claims 12 through 23 and 25 through 29 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made without traverse in the paper mailed on May 6, 2003.

Drawings

5. A new sheet of drawings including Figures 2 and 3 was received on September 29, 2004. These drawings are hereby approved.

Art Unit: 3753

6. The drawings filed on November 17, 2001 are still objected to under 37 CFR 1.83(a). The drawings **must** show every feature of the invention specified in the claims. Therefore, the following must be shown or the features canceled from the claim(s), for example: a divider wall *between* the bathroom exhaust airstream path and the return airstream path as recited in each of claims 9, 30, and 34 (note that divider wall 50 *is* shown in Figure 1, but *not* between the bathroom exhaust airstream 90 and the return airstream path 92). No new matter should be entered. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will *not* be held in abeyance.

7. The drawings filed on November 17, 2001 are still objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "32" and "34" both point to and appear to designate damper 32 in Figure 1. Similarly, reference characters "84" and "86" both point to and appear to designate damper 84. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will *not* be held in abeyance.

Specification

8. Receipt and entry of the amended abstract is hereby acknowledged.

9. The use of the trademarks such as "Modular Climate Changer" [page 1, line 28] and "Traq" [page 7, lines 18 and 21] has been noted in this application. Trademarks should be **capitalized** wherever they appear and be accompanied by the generic terminology.

Art Unit: 3753

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In view of applicant's comment that both means-plus-function limitations in claim 24 do refer to the same element, namely air-to-air heat exchanger 12, claim 24 may be interpreted as including the same element, i.e., air-to-air heat exchanger 12, TWICE--once as the means for extracting heat from the system exhaust and bathroom exhaust airflow paths, and then again as the means for transferring the extracted heat to the outside air flow path. Where, as in the instant case, a claim directed to a device can be read to include the same element twice, the claim may be rendered indefinite by the double inclusion of the element. See Ex parte Kristensen, 10 USPQ2d 1701 (Bd. Pat. App. & Inter. 1989). Thus, applicant is advised to replace the two separate means-plus-function limitations with a single means-plus-function limitation which clearly relates both functions to a single element in order to avoid the indefiniteness due to double inclusion. By reciting "means for extracting heat from the system exhaust and bathroom exhaust airflow paths and for transferring the extracted heat to the outside air flow path" in lieu of the two means-plus-functions limitations as currently appearing in claim 24 would obviate an indefiniteness rejection of claim 24 based on double recitation.

Claim Rejections - 35 U.S.C. § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 3753

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1 through 4, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by *Taylor* (previously of record).

Taylor discloses a heat recovery arrangement essentially as claimed, including, for example: a housing 10 including two inlets 24 and a corresponding outlet 28, as well as corresponding airflow paths therebetween; another inlet 26 and a corresponding outlet 30, as well a corresponding airflow path therebetween, with, for example, inlet 26 being readable on the outside air inlet and outlet 30 being readable on the supply air outlet as recited in claim 1 of the instant application; a heat recovery device or heat exchange panel 32; and, a single fan 44 for providing the motivating force for the airflow entering via inlets 24 and exiting via outlet 28.

The reference thus reads on the claims.

14. Alternately for claims 1 through 3, claims 1 through 3, 11, 30, and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by *McFadden*.

McFadden [especially Figure 1] discloses a heat recovery arrangement or an energy recovery system essentially as claimed, including, for example: a housing including an exhaust inlet 42, an exhaust outlet at fan 70, an exhaust airflow path through the housing from the exhaust inlet 42 to the exhaust outlet at fan 70, a return air inlet corresponding to the inlet to return conduit 60 as shown in Figure 1, a return airflow path through the housing from the return air inlet to the exhaust outlet, an outside air inlet 50, a supply air outlet 52, and an outside air path through the housing from the outside air inlet 50 to the supply air outlet 52; a heat recovery device including a rotating energy recovery wheel 26; and, a divider wall 30 between the exhaust airflow path and the return airflow path. At least some heat transfer inherently occurs between the exhaust airflow path and the return airflow path both by conduction

Art Unit: 3753

through the divider wall 30 and upon mixing between the two airflow paths as these merge before flowing into fan 70.

The reference thus reads on the claims.

15. Claim 24 is rejected under 35 U.S.C. 102(b) as being anticipated by *Shibata*.

Shibata discloses a heat recovery arrangement or an energy recovery system essentially as claimed, including, for example: a fan 3 in ventilator 1 for moving air; a bathroom exhaust airflow path beginning at bathroom opening 23c in lavatory or bathroom C and going to or towards fan 3 into the ventilator 1 via inlet 9; a building exhaust airflow path going from the far right of Figure 1 and going through duct 22 to or towards fan 3 into the ventilator 1 via inlet 9; an outside airflow path going through duct 17 and through fan 3 via inlet 7 [see Figure 2]; and, a heat exchanger 6 readable on the means for extracting heat from the combined system exhaust and bathroom exhaust airflow paths b and the means for transferring the extracted heat to the outside airflow path a.

The reference thus reads on the claims.

16. Alternately for claims 1 through 4, 10, 30, and 34, claims 1 through 10 and 30 through 37 are rejected under 35 U.S.C. 102(b) as being anticipated by *Besik* (*previously of record*).

Besik [especially Figure 1] discloses a heat recovery arrangement or an energy recovery system essentially as claimed, including, for example: two air flow paths 20 and 22 with a divider wall 12 or 212 therebetween; a third airflow path 21; a heat transfer device or cooler 2; plural airflow dampers 19a, 19b, 19c, and 19d; airflow monitors and sensors associated with processor 4; and a single fan 3. Generally, little or no patentable weight is accorded to functional intended use limitations in the claims.

The reference thus reads on the claims.

Conclusion

17. The additional prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 3753


18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric, whose telephone number is (571) 272-4909.

While she works a flexible schedule that varies from day to day and from week to week, Examiner Ciric may generally be reached at the Office during the work week between the hours of 10 a.m. and 6 p.m. ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene, can be reached at (571) 272-4930.

lvc

January 5, 2005


LJILJANA V. CIRIC
PRIMARY EXAMINER
ART UNIT 3753